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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,771	09/19/2001	Gary L. Cole	END920010028	9827

7590 07/14/2004

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EXAMINER
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HOANG, PHUONG N

ART UNIT	PAPER NUMBER
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2126

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/955,771	Applicant(s) COLE ET AL.	
	Examiner Phuong N. Hoang	Art Unit 2126	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 - 30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/19/01</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1 - 30 are pending for examination.
2. The cross reference related to the application cited in the specification must be updated (i.e. update the relevant status, with PTO serial numbers or patent numbers where appropriate, on page 1 section [0002] and [0003]; the entire specification should be so revised).

### ***Specification***

3. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code (p. 11). Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1 - 3, 5 - 9, 11 - 13, 15 - 19, 21 - 23, and 25 - 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thornton "Using non-Java code" pages 1 - 29 in view of Kennedy, US patent no. 6,298,391.**

6. **As to claim 1**, Thornton teaches a method of facilitating calls to objects, the method comprising the steps of:

determining an identifier of a method to be invoked on an object, the determining using at least a portion of a method signature (identifying signatures in the type library, page 18 on section Type Libraries) corresponding to the method and generated from a typelib associated with the object.

Thornton does not explicitly teach the step of employing a proxy object to facilitate a call to the object. However, Thornton teaches facilitate a call (marshalling arguments, page 12).

Kennedy teaches employing a proxy object to facilitate a call to the object (proxy marshals all data including arguments, col.1 lines 15 - 67 and col. 5 - 25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Thornton and Kennedy's system because Kennedy's proxy object is well known for manipulating and marshalling data between interoperable object models.

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7. **As to claim 2**, Thornton teaches the step of wherein the object is of an object model different from an object model of the method signature (COM and Java objects, page 19).
8. **As to claim 3**, Thornton teaches the step of wherein the object is a COM object and the method signature is written in Java (Java method signature, page 22 on paragraph 3).
9. **As to claim 5**, Thornton teaches the step of wherein the determining comprises using the method signature to look-up the identifier in a data structure, the data structure being separate from the method (uses the information in the type library, page 18 on section type libraries).
10. **As to claim 6**, Thornton teaches the step of wherein the employing comprises using the identifier and one or more arguments of the method signature in a call to a native method of the object (page 5 on section Accessing JNI and page 7 paragraph 3), the native method performing the call to the object (native method, page 2 on sections JNI and Calling a native method).
11. **As to claim 7**, this is the method claim of claims 1 and 6. See the rejection for claims 1 and 6 above.

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12. **As to claim 8**, Thornton teaches the step of wherein the identifier is separate from the method signature and the method (one of ordinary skill in the art can recognize that the identifier is the id of the method not the method itself).

13. **As to claim 9**, see rejection for claim 5 above.

14. **As to claim 11**, this is the method claim of claim 1. See the rejection for claim 1 above.

15. **As to claims 12 - 13**, see rejection for claims 2 - 3 above respectively.

16. **As to claims 15 - 16**, see rejection for claims 5 - 6 above respectively.

17. **As to claim 17**, this is the system claim of claim 7. See the rejection for claim 7 above.

18. **As to claims 18 - 19**, see rejection for claims 8 - 9 above respectively.

19. **As to claim 21**, this is the program claim of claim 1. See the rejection for claim 1 above.

20. **As to claims 22 - 23**, see rejection for claims 2 - 3 above respectively.

21. **As to claims 25 - 26**, see rejection for claims 5 - 6 above respectively.
22. **As to claim 27**, this is the program claim of claim 7. See the rejection for claim 7 above.
23. **As to claims 28 - 29**, see rejection for claims 8 - 9 above respectively.
24. **Claims 4, 10, 14, 20, 24, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thornton "Using non-Java code" pages 1 – 29 in view of Kennedy, US patent no. 6,298,391, and further in view of Igra, US patent no. 6,701,485.**
25. **As to claim 4**, Thornton teaches the step of type-checkable at runtime (runtime type checking, page 2 on section JNI).
- Thornton and Kennedy do not explicitly teach the method signature is type-checkable.
- Igra teaches the step of the method signature is type-checkable at compile time (the interface definition including signature provides type checking, col. 5 lines 1 – 50).
- It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Thornton, Kennedy, and Igra's system



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because Igra's signature type-checking would distinguish the type of the interfaces before using to call a method.

26. **As to claims 10, 14, 20, 24, and 30**, see rejection for claim 4 above.

### ***Conclusion***

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kukura et al., US Patent no. 6,633,923, demonstrating the method for determining signature for calling object models, and proxy used for marshalling process.

Bea "Using COM objects from Java", 2001, demonstrating interoperability between object models.

Quoin "COM versus CORBA: A Decision Framwork », 10-1996, demonstrating interoperability between object models.

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong N. Hoang whose telephone number is (703) 605-4239. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703)305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ph  
July 9, 2004

A handwritten signature in cursive script, appearing to read "Snelas".